

DEPARTMENT OF THE ARMY
Wilmington District, Corps of Engineers
Post Office Box 1890
Wilmington, North Carolina 28402-1890
(<http://www.saw.usace.army.mil/wetlands/regtour.htm>)

Action ID No. 200300214

July 28, 2004

PUBLIC NOTICE

Dallas Harris Construction, PO Box 531, Wrightsville Beach, NC 28480, has applied for a Department of the Army (DA) permit TO DISCHARGE FILL MATERIAL INTO 0.61 ACRES OF SECTION 404 WETLANDS AND 2.79 ACRES OF WATERS OF THE UNITED STATES ADJACENT AND HYDROLOGICALLY CONNECTED TO SMITH CREEK, A TRIBUTARY TO THE CAPE FEAR RIVER, ASSOCIATED WITH THE CONSTRUCTION OF PHASE 6 OF THE WESTBAY ESTATES RESIDENTIAL SUBDIVISION, LOCATED ALONG THE WEST SIDE OF NORTH CAROLINA HIGHWAY 17, OFF TORCHWOOD BOULEVARD, IN WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA.

The following description of the work is taken from data provided by the applicant and from observations made during a site visit by a representative of the Corps of Engineers. The project site is comprised of three tracts in the Westbay Estates property. Tract A, located south of Putnam Drive, is 63.63 acres in size; tract B, located north of Lendire Road and south of Torchwood Boulevard, is 75.91 acres; and tract C, located north of Torchwood Boulevard, is 29.04 acres in size. These tracts include approximately 5.67 acres of jurisdictional wetlands and approximately 3.0 acres of Waters of United States. Plans submitted with the application show permanent impacts to 0.61 acres of jurisdictional wetlands associated with road crossings and lot fill. In addition, the applicant proposed to fill 2.79 acres of jurisdictional waters associated with road construction and lot development. The purpose of the work is to construct Phase 6 of the Westbay Estates residential development. Prior Corps of Engineers permitting of impacts to jurisdictional waters at the Westbay Estates residential subdivision include the January 5, 2001 verification (Action ID # 200100297) for the use of Nationwide Permit 41, Reshaping of Existing Drainage Ditches for 0.82 acres of impact to Waters of the United States.

The current use of the majority of the project area is undeveloped, mowed grassland. Historically, the proposed project area was once a palustrine, shrub-scrub and broad-leaved evergreen pocosin habitat that had been ditched and drained and utilized for forestry practices. Approximately 5.67 acres of the palustrine pocosin (wetland) remain. The surrounding land use is residential development.

Proposed impacts to jurisdictional wetlands and waters are associated with construction of roads and lot development. Plans for the project include the proposed placement of 50,530 cubic yards of fill material for the road crossings and lot fill. Plans showing the work are included with this public notice.

The proposal also includes an on-site mitigation plan that includes creation of 1.18 acres of wetlands, the construction of 50,613 (3.74 acres) of grassed swales, and preservation of 5.06 acres of wetlands. The mitigation proposal is included with this public notice.

This proposal shall be reviewed for the applicability of other actions by North Carolina agencies such as:

- a. The issuance of a Water Quality Certification under Section 401 of the Clean Water Act by the North Carolina Division of Water Quality (NCDWQ).
- b. The issuance of a permit to dredge and/or fill under North Carolina General Statute 113-229 by the North Carolina Division of Coastal Management (NCDCM).
- c. The issuance of a permit under the North Carolina Coastal Area Management Act (CAMA) by the North Carolina Division of Coastal Management (NCDCM) or their delegates.
- d. The issuance of an easement to fill or otherwise occupy State-owned submerged land under North Carolina General Statute 143-341(4), 146-6, 146-11, and 146-12 by the North Carolina Department of Administration (NCDA) and the North Carolina Council of State.
- e. The approval of an Erosion and Sedimentation Control Plan by the Land Quality Section, North Carolina Division of Land Resources (NCDLR), pursuant to the State Sedimentation Pollution Control Act of 1973 (NC G.S. 113 A-50-66).

The requested Department of the Army (DA) permit will be denied if any required State or local authorization and/or certification are denied. No DA permit will be issued until a State coordinated viewpoint is received and reviewed by this agency. Recipients of this notice are encouraged to furnish comments on factors of concern represented by the above agencies directly to the respective agency, with a copy furnished to the Corps of Engineers.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The District Engineer's initial determination is that the proposed project would not adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

This application is being considered pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344). Any person may request, in writing within the comment period specified in the notice, that a public hearing be held to consider this application. Requests for public hearing shall state, with particularity, the reasons for holding a public hearing.

The District Engineer has consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein, and this site is not registered property or property listed as being eligible for inclusion in the Register. Consultation of the National Register is the extent of cultural resource investigations by the District Engineer, and he is otherwise unaware of the

presence of such resources. Presently, unknown archeological, scientific, prehistorical, or historical data may be lost or destroyed by work under the requested permit.

The District Engineer, based on available information, is not aware that the proposed activity will affect species, or their critical habitat, designated as endangered or threatened pursuant to the Endangered Species Act of 1973.

The decision, whether to issue a permit, will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts that the proposed activity may have on the public interest requires a careful weighing of all those factors that become relevant in each particular case. The benefits that may be expected to accrue from the proposal must be balanced against its foreseeable detriments. The decision whether to authorize a proposal, and if so the conditions under which it will be allowed to occur, are therefore decided by the outcome of the general balancing process. That decision should reflect the national concern for both protection and use of important resources. All factors that may be relevant to the proposal must be considered including the cumulative effects of it. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards and flood plain values (according to Executive Order 11988), land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the placement of dredged or fill materials in waters of the United States, a permit will be denied if the discharge that would be authorized would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria, a permit will be granted unless the District Engineer decides that it would be contrary to the public interest.

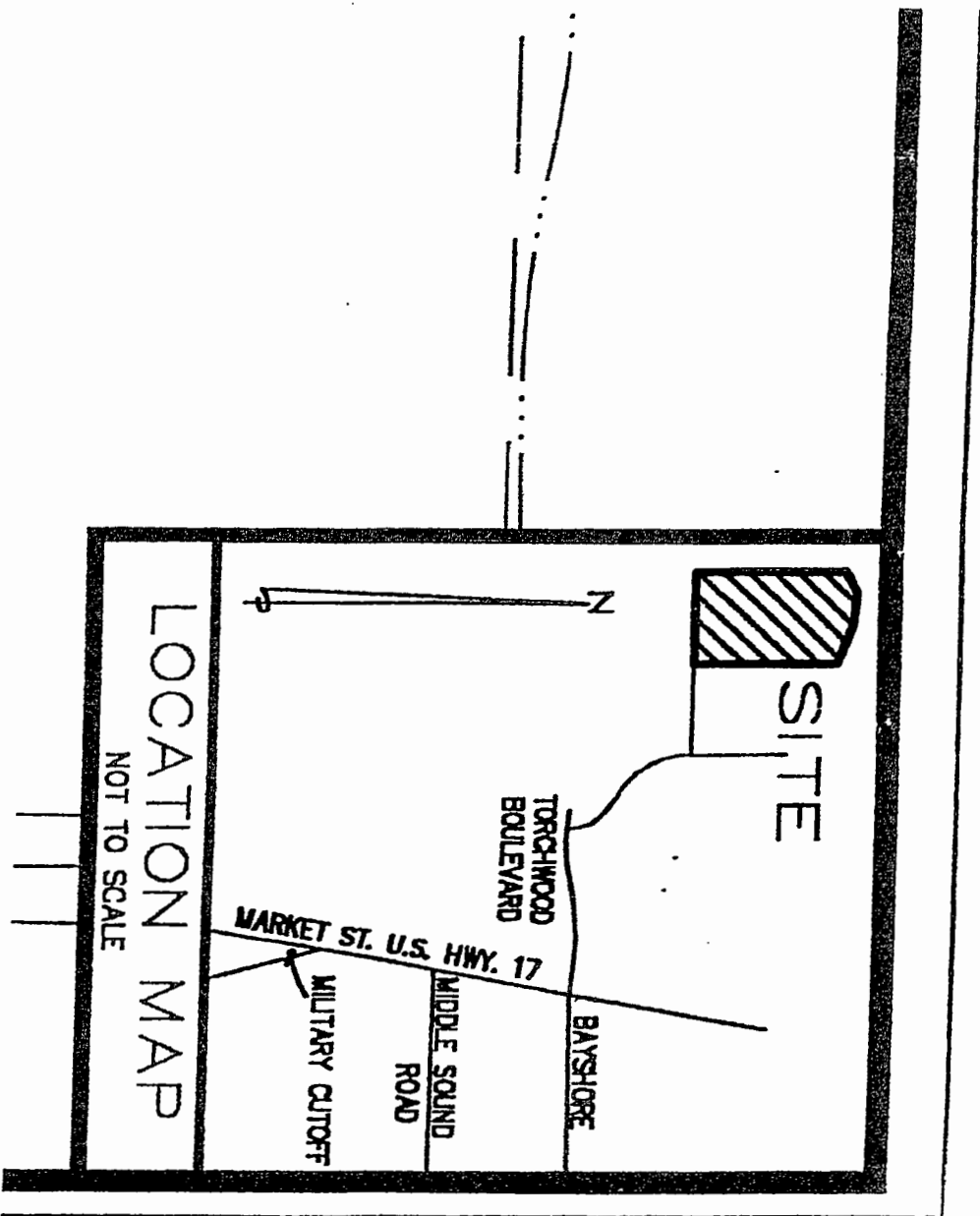
The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes and other interested parties to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to decide whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to decide the need for a public hearing and to decide the public interest of the proposed activity.

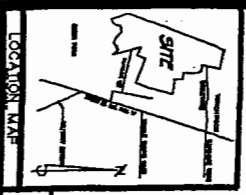
Generally, the decision whether to issue this Department of the Army (DA) permit will not be made until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act. The NCDWQ considers whether the proposed activity will comply with Sections 301, 302, 306, and 307 of the Clean Water Act. The application and this public notice for the Department of the Army (DA) permit serves as application to the NCDWQ for certification.

Additional information regarding the Clean Water Act certification may be reviewed at the offices of the Wetlands/401 Unit, NCDWQ, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. Copies of such materials will be furnished to any person requesting copies upon payment of reproduction cost.

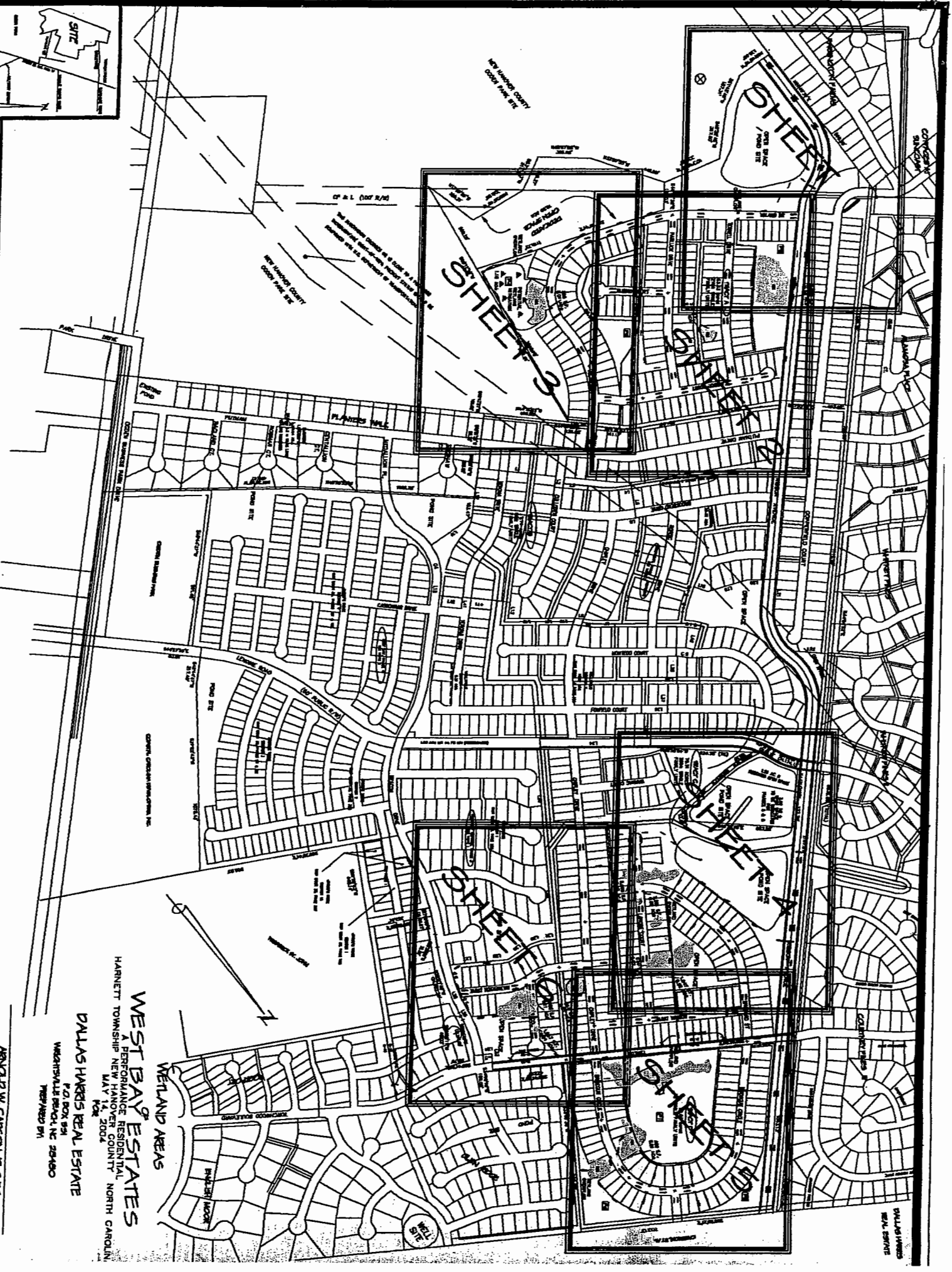
All persons desiring to make comments regarding the application for Clean Water Act certification should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 1621 Mail Service Center, Raleigh, NC 27699-1621, on or before August 13, 2004, Attn: Mr. John Dorney.

Written comments pertinent to the proposed work, as outlined above, will be received in the Corps of Engineers, Wilmington District, Wilmington Regulatory Field Office, Attn: Ms. Jennifer Frye, Post Office Box 1890, Wilmington, North Carolina, 28402-1890, until 4:15 p.m., August 27, 2004, at telephone (910) 251-4923.





COVER SHEET - WESTBAY Figure 1.

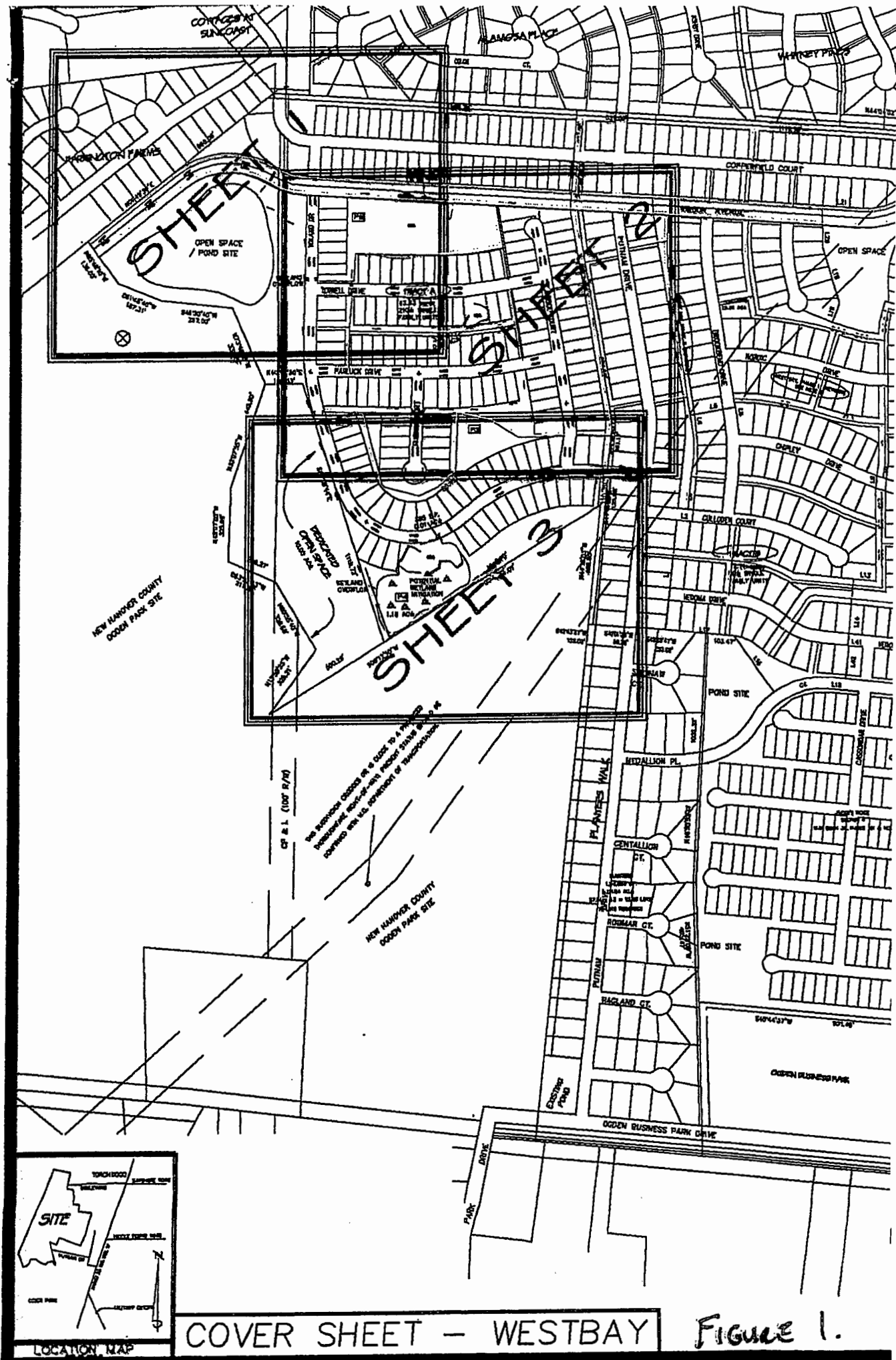


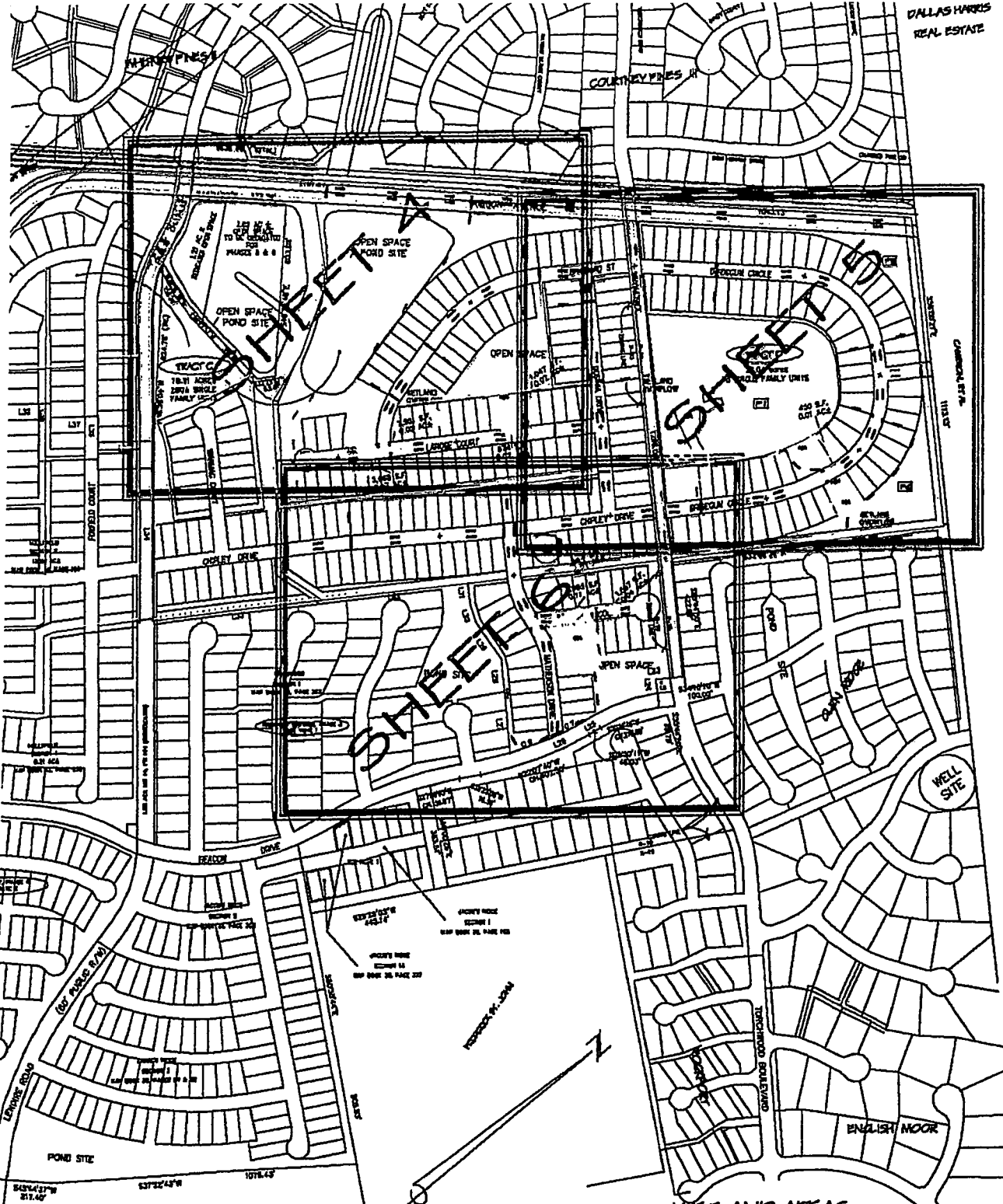
PRELIMINARY
NOT FOR CONSTRUCTION
OR
SALES PURPOSES
COVER SHEET NOT TO SCALE

ARNOLD W. CARSON, P.S.P.C.
406 NORTH THIRD STREET
WILMINGTON, NC 28401
PHONE (910) 772-9115
FAX (910) 772-9125

WEST BAY ESTATES
A PERFORMANCE RESIDENTIAL
HARNETT TOWNSHIP NEW HANOVER COUNTY NORTH CAROLINA
MAY 1, 2004
DALLAS HARRIS REAL ESTATE
P.O. BOX 591
WILMINGTON, NC 28400
772-9125

WETLAND AREAS





WEST BAY⁹ ESTATES

A PERFORMANCE RESIDENTIAL
HARNETT TOWNSHIP NEW HANOVER COUNTY NORTH CAROLINA
MAY 14, 2004
FOR

DALLAS HARRIS REAL ESTATE

P.O. BOX 551
WRIGHTSVILLE BEACH, NC 28480
PREPARED BY:

ARNOLD W. CARSON, PLS PC
406 NORTH THIRD STREET
WILMINGTON, NC 28401
PHONE: (910) 772-9115
FAX: (910) 772-9128

PRELIMINARY
NOT FOR RECORDATION
CONVEYANCES, OR
SALES PURPOSES.
COVER SHEET NOT TO SCALE

SCALE 1" = 150'

FARRINGTON FARMS

①

5,053 S.F.
0.12 AC±

P2

VOLAND DR

OPEN SPACE
/ POND SITE

WETLAND
OVERFLOW

TERRELL DRIVE

TRACT A

63.63 acres
210± SINGLE
FAMILY UNITS

PRELIMINARY
NOT FOR RECORDATION
CONVEYANCES, OR
SALES PURPOSES.



SHEET 1 - WESTBAY

WEST BAY, PHASE 6 (REVISION)

PUTNAM DRIVE

RIBBON AVENUE

SCALE 1" = 150'

JARBOE COURT

P3 PRELIMINARY
NOT FOR RECORDATION
CONVEYANCES, OR
SALES PURPOSES.

5,033 S.F.
0.12 AC±

2.

404

P2

TRACT A

63.63 acres
210± SINGLE
FAMILY UNITS

404

3.

372 S.F.
0.01 AC±

RUBINO COURT

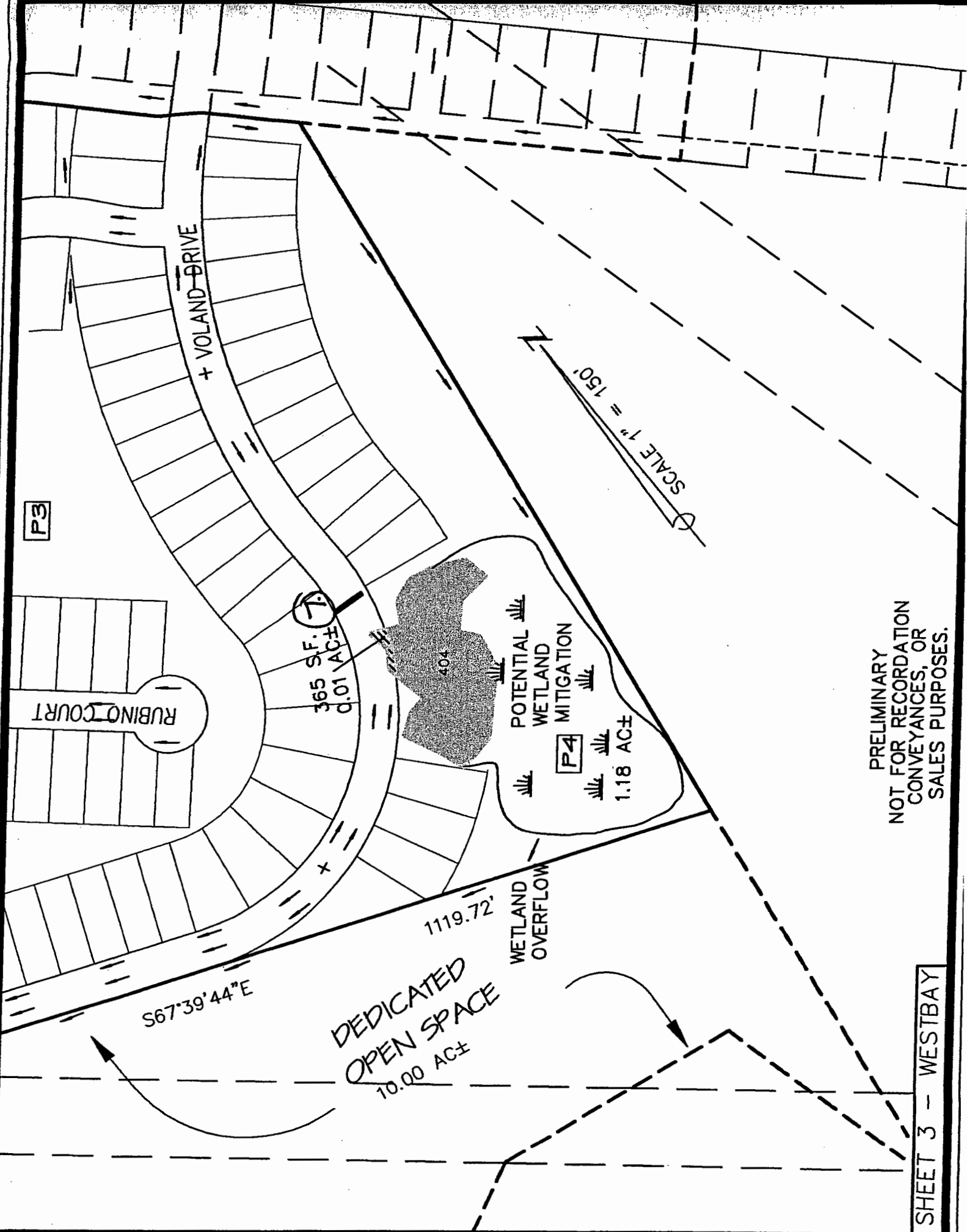
PARLUCK DRIVE

TERRELL DRIVE

VOLAND DR

WETLAND
OVERFLOW

SHEET 2 - WESTBAY



PRELIMINARY
NOT FOR RECORDATION
CONVEYANCES, OR
SALES PURPOSES.

PRELIMINARY
NOT FOR RECORDATION
CONVEYANCES, OR
SALES PURPOSES.

RIBBON AVENUE

BROWARD ST

OPEN SPACE

OPEN SPACE
/ POND SITE

SCALE 1" = 150'

3.05 AC ±
OPEN SPACE
TO BE DEDICATED
FOR
PHASES 5 & 6

1.21 AC ±
DEDICATED OPEN SPACE

OPEN SPACE
/ POND SITE

TRACT C

75.91 ACRES
280± SINGLE
FAMILY UNITS

WARMAG COURT

LAROSE COURT

WETLAND
OVERFLOW

2,581 S.F.
0.06 AC±

874 S.F.
0.02 AC±

3,065 S.F.
0.07 AC±

4

5

6

PRELIMINARY
NOT FOR RECORDATION
CONVEYANCES, OR
SALES PURPOSES

BROWARD ST

R-15
R-10
ZONING LINE

DOSINIA DRIVE

CHIPLEY DRIVE

SHEET 5 - WESTBAY

RIBBON AVENUE

BRIDEGUM CIRCLE

BRIDEGUM CIRCLE

TRACT D

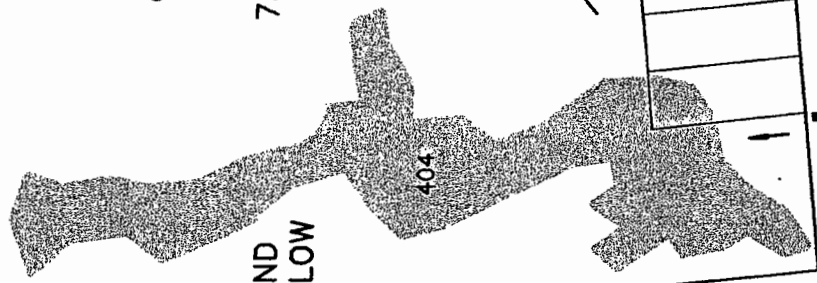
29.04 acres
73 SINGLE FAMILY UNITS

(9)

450 S.F.
0.01 AC±

(P1)

SCALE 1" = 150'



WETLAND
OVERFLOW

WETLAND
OVERFLOW

(PG)

(P5)

1.0241 OPEN SPACE
0.0241 AC±

(8)

BRIDGEM CIRCLE

CHIPLEY DRIVE

MATHERSON DRIVE

S55°44'50"E
422.67'

R-15

R-10

ZONING LINE

OPEN SPACE

POND SITE

KINGSWOOD

SECTION 1

MAP BOOK 38, PAGE 282

SCALE 1" = 150'

PRELIMINARY
NOT FOR RECORDATION
CONVEYANCES, OR
SALES PURPOSES.

SHEET 6 - WESTBAY

(10) 864 S.F.
AC±
0.02

(11) 4,965 S.F.
AC±
0.11

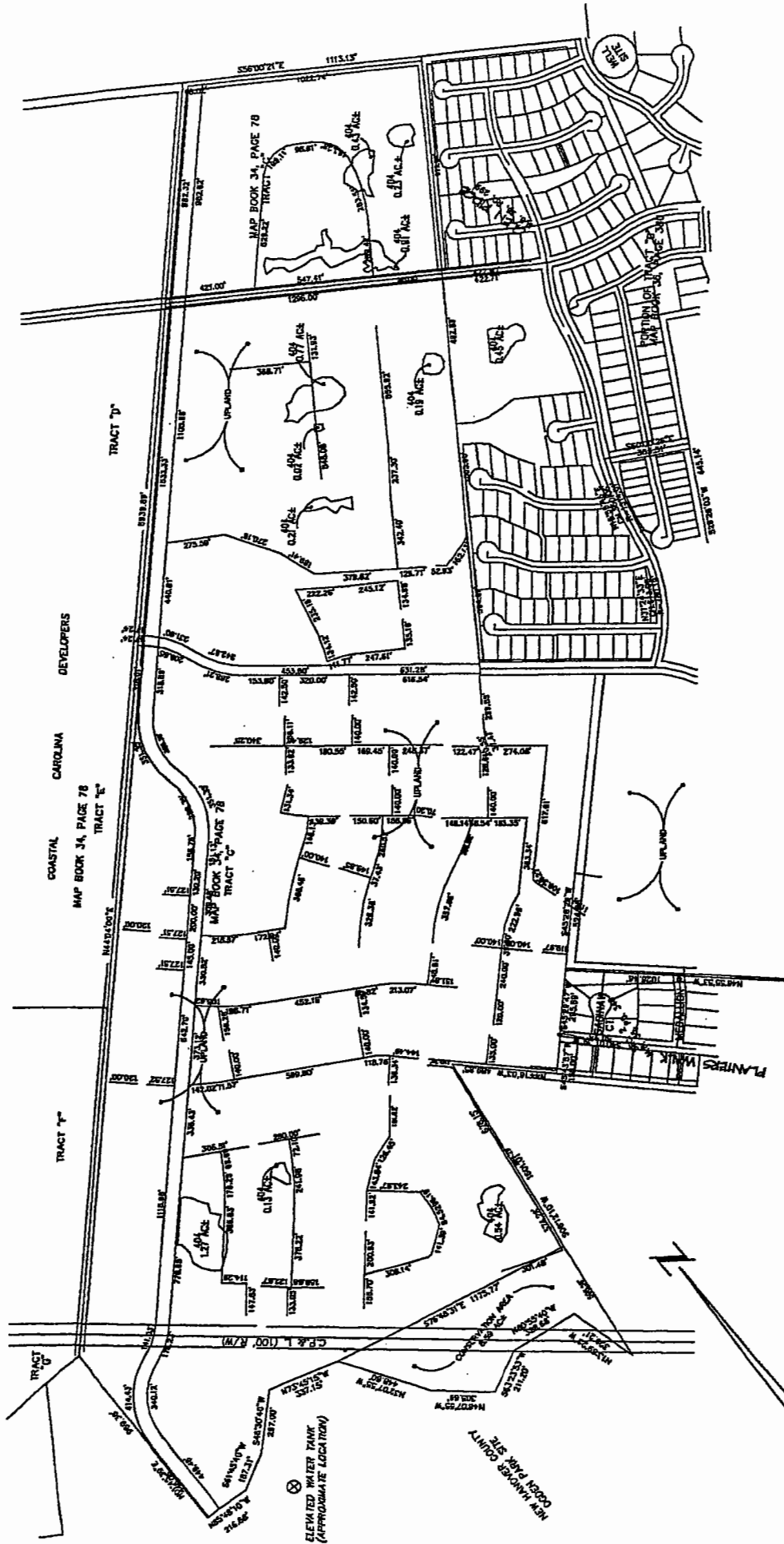
(12) 5,100 S.F.
AC±
0.12

404

404

404

NOTE:
 LINEAR FOOTAGE OF PROPOSED DITCHES ARE 50,613'
 RESIDUAL 404 WETLANDS 5.15 AC±



Southern Environmental Group, Inc.

3973 B Market Street · Wilmington, North Carolina 28403

910.254.0602 · Fax: 910.254.0603 · office@segi.us

www.segi.us

Westbay Estates Impact Detail Sheet

<i>Impact</i>	<i>Type of Impact</i>	<i>Type of Wetland</i>	<i>Size (acres)</i>
1	Road Crossing	Wet Flat	0.120
2	Road Crossing	Wet Flat	0.120
3	Road Crossing	Wet Flat	0.010
4	Road Crossing / Lot Fill	Wet Flat	0.070
5	Lot Fill	Wet Flat	0.060
6	Road Crossing	Wet Flat	0.020
7	Road Crossing	Wet Flat	0.010
8	Lot Fill	Wet Flat	0.020
9	Lot Fill	Wet Flat	0.010
10	Lot Fill	Wet Flat	0.020
11	Road Crossing	Wet Flat	0.110
12	Road Crossing	Wet Flat	0.040
13	Fill	Waters of the US	2.79 Acres

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www.segi.us

Westbay Estates Mitigation Plan

Draft v.1

Requested By:

Dallas Harris Real Estate Construction, Inc.
Post Office Box 551
Wrightsville Beach, NC 28480

Prepared By:

David A. Syster, M.S.
Southern Environmental Group, Inc.
3973 B Market
Wilmington, NC 28403

July 1, 2004

Introduction

Dallas Harris Real Estate Construction Company, Inc. (Dallas Harris) has undertaken development activities within Westbay Estates Subdivision, tract located west of Market Street, Odgen, New Hanover County, North Carolina. Mr. Harris wishes to complete his development of and requested Department of the Army approval for unavoidable impacts to section 404 wetlands.

Mr. Harris has retained Southern Environmental Group, Inc. to prepare a suitable mitigation plan to off-set all unavoidable wetland impacts.

Impacted Sites

At the present time 5.67 acres of jurisdictional wetlands exist within Westbay Estates. Ditches within the tract do exist, and ditch bottoms have been classified as Waters of the United States by the US Army Corps of Engineers (ACOE). Completion of the proposed subdivision requires that 0.61 acres of wetlands will be impacted, in addition 48,667 92.79 acres) linear feet of Waters of the US (3.74 acres.) Will be filled.

The proposed areas of wetland impacts are located at 13 locations within Westbay Estates. Approximately 48,667 (2.79 acres) linear feet of existing ditches will be relocated, 8 road crossings impacting 0.480 acres, and 0.130 acres of lot fill (Figure 1.).

The areas of proposed impacts was once a palustrine, shrub-shrub, broad-leaved evergreen, pocosin habitat. Historically (pre-project) the site was utilized for forestry practices. At the present time the sites have been continually mowed.

Soil types present in Westbay Estates include Murville fine sand (Typic Haplaquods) and Leon sand (Aeric Haplaquods). Both soil types can be characterized as being poorly to very poorly drained and are predominately sand. These soils are nearly level and are found on flats and within depressions (Figure 2.).

Vegetation present in Westbay Estates pre-project included: *Aristida spp.* (Wire grass), *Pteridium aquilinum* (bracken fern), *Ilex coriacea* (tall gallberry), *Myrica cerifera* (wax myrtle), *Osmundia cinnamomea* (cinnamon fern), and *Pinus taeda* (loblolly pine). Presently, vegetation at Westbay Estates is limited to *Pinus taeda* (loblolly pine) and limited understory vegetation due to development activities and mowing.

Mitigation

As identified in the memorandum of agreement between the USACE and US EPA (15 November 1989), acquisition and preservation of existing wetlands is favored for corridor protection and as a means to hedge against future destruction or unfavorable habitat impacts. Preservation also insures that wetlands endemic to the region will remain and continue to provide the functions and values associated with them. The mitigation proposed below includes creation and preservation.

Creation

(+/- 1.18 acres of wetland, 50,613 linear feet of swales) (3.74 acres)

The proposed mitigation area includes a section within Westbay Estates previously ditched. A contiguous +/- 1.18 acres will be utilized as a creation project to off-set potential unavoidable impacts. Although a number of ditches in this area will remain, a number of ditches will be filled as shown on the attached map. Additionally, approximately 50,613 (3.74 acres) linear feet of swales will be constructed within this phase of the subdivision. (Figure 1.)

Preservation Areas

(+/- 5.06 acres)

The second area of proposed mitigation consists of 11 sites located in Westbay Estates subdivision. These are jurisdictional areas within the project which will remain post project. In addition the 1.18 acre of created wetlands will also be preserved. (Figure 1.)

Typical vegetation and soils associated with these areas are similar to those found pre project.

Hydrology has been altered only slightly by recent development of the surrounding area. The system appears to receive its hydrologic input from runoff from the adjacent upland areas.

Habitat Values

Due to the high quality of both these habitats they provide a number of functions pertinent to wildlife including many species which migrate through the area seasonally or are in a life history stage. These wetlands provide a fringe habitat in an area where development will likely occupy the majority of the surrounding land. The system also functions to buffer water high in pollutants from runoff associated with the adjacent developed areas.

Mammalian species include: *Odocoileus virginianus* (white-tailed deer), *Vulpes vulpes* (red fox), *Urocyon cinereoargenteus* (gray fox), *Procyon lotor* (raccoon), *Didelphis Virginian* (opossum), *Sciurus carolinensis* (gray squirrel), and smaller rodents such as the field mouse.

Bird species include: various species of predatory hawks and owls, as well as smaller bird species such as *Turdus migratorius* (american robin), *Cyanocitta cristata* (blue jay), *Mimus polyglottos* (mocking bird), *Cantopus virens* (eastern wood pewee), *Parus carolinensis* (carolina chickadee), *Thryothorus ludovicianus* (carolina wren), *Parus bicolor* (tufted titmouse), species from the family Ardeidae (herons), among others. It should be noted that this habitat provides excellent migratory and resident song bird habitat and nesting areas.

Herpetological species found in the region include: *Agkistrodon piscivorus* (eastern cottonmouth), *Agkistrodon contortrix contortrix* (southern copperhead), *Nerodia*

erythrogaster erythrogaster (redbelly water snake), *Opheodrys aestivus* (rough green snake), *Elaphe obsoleta obsoleta* (black rat snake), among others. Turtle species in the region include: *Terrapene carolina carolina* (eastern box), *Clemmys guttata* (spotted turtle), *Chelydra serpentina* (common snapping turtle), and *Kinosternon subrubrum* (eastern mud turtle). Many toad species form both the *Scaphiopus* (spadefoot) and *Bufo* (true toads) families, as well as frogs from the *Hyla* (tree frogs) and *Rana* (true frogs) families. Various species of salamanders from the *Ambystoma* (mole salamanders), *Notophthalmus* (newts), and *Plethodon* (wood salamanders) families. *Anolis carolinensis* (green anole) is also found in the region.

Preservation and Protection

Ultimately, the intent of this enhancement package is to subject the described mitigation parcels to a conservation easement. Recent urban impacts within and adjacent to the conservation sites increase the need for preserving wetland functions in a natural state. In addition, continued availability of Nationwide or General 404 Permits to surrounding property owners increase the possibility of further degradation of the wetland and its associated functions. Preservation of this land will provide significant vital resource protection in the lower reaches of the Cape Fear River watershed.

In order to insure perpetual protection of the mitigation sites, Mr. Harris is proposing a permanent conservation easement be placed on the properties. The easements will be designed to ensure perpetual preservation of the property and will be held by the respective homeowners association.

Restoration

As previously mentioned, the restoration parcel located in Westbay Estates has previously been ditched and mowed, altering the hydrology and vegetative composition of the site. Mr. Harris therefore proposes to restore this 1.18+/- acre area back to its previous pre construction wetland status, and then monitor the site ensure it meets the criteria for wetland status.

The first step in restoring this area involves returning wetland hydrology to the area. Mr. Harris plans to reintroduce water to the area (see attached map). This will be accomplished by constructing grass swales to direct treated storm water into the site. Storm water from the lots and streets adjacent to the area will be directed through velocity reduction devices and through grass swales along Voland Drive. In order to ensure adjacent lots and homes are not flooded during periods of heavy rains, an emergency outfall will be constructed.

The next step in the restoration process is to re-vegetate the land with native wetland plant species that were historically located on site and compatible with the soil type and water regime of the site. As previously mentioned, this area was historically a pocosin type environment consisting of deciduous shrubs, evergreen pines and a few hardwood tree species. Therefore, the following species are good candidates to plant: *Pinus taeda*, *Pinus serotina*, *Gordonia lasianthus*, *Persea borbonia*, *Cyrilla racemiflora*, *Quercus*

nigra, *Salix nigra*, *Cyrilla racemiflora*, *Nyssa biflora*, and *Fraxinus pennsylvanica*. A minimum of 680 trees per acre will be planted, with no one species more than 20 percent of the total.

Monitoring and Success Criteria

To ensure the successful restoration of this site, long term monitoring will be required. The key in attaining the desired wetland restoration is to assure every measure will be taken to provide the conditions necessary for wetland hydrology to develop in order to establish the desired vegetation. Vegetative counts, soil characteristics, and hydrologic regimes will be monitored for a five year period. Annual site visits will be conducted and findings will be reported thereafter.

The success criteria of this mitigation site will be based on the 1987 Army Corps of Engineers Wetlands Manual. The mitigation site will be deemed successful once it meets the three wetland parameters outlined in the manual and as further described in this section. The site can be deemed successful by meeting the success criteria for two (2) consecutive years.

Vegetation

Vegetative data will be gathered including survival data of the planted specimens and the presence of nuisance species. Species diversity and composition will be noted. For success criteria to be met, we would expect a survival rate of 320 planted trees per acre after 2 years, and 260 trees per acre after 5 years. No one species should account for more than 20% of the composition. Any areas that do not meet these requirements will be spot-planted.

Hydrology

Hydrologic monitoring within the site will consist of determining the water level at various locations across the site to verify the presence of wetland hydrology during the growing season. Monitoring wells will be installed to a depth of 20 inches and will be sealed with sand and bentonite. These wells will take a daily reading of the water table depth and this data will be processed into graphs and plotted against National Weather Service rainfall data for the area. Success criteria of the hydrologic parameter requires the site to exhibit one or more of the primary indicators; or two or more of the secondary indicators of hydrology as outlined in the 1987 Army Corps of Engineers Wetlands Manual for twelve percent of the growing season under normal conditions (e.g. normal rainfall, normal temperatures, etc..).

Soils

Hydric soils are present and their hydric conditions will be enhanced as a result of restoring the site's hydrology. This will be accomplished by allowing runoff from portions of the subdivision to enter the mitigation area. Monitoring wells placed within the mitigation area will be utilized to ensure that normal wetland hydrology is present.